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<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	<b>Application Number</b>	09/658,283	
	<b>Filing Date</b>	Sep 8, 2000	
	<b>First Named Inventor</b>	Turner, Jr., C. Alexander	
	<b>Group Art Unit</b>	1653	
	<b>Examiner Name</b>	James Mason	
<b>Total Number of Pages in This Submission</b>	5	<b>Attorney Docket Number</b>	LEX-0041-USA

ENCLOSURES (check all that apply)		
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment/Response  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Assignment Papers (for an Application)  <input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition Routing Slip (PTO/SB/69) and Accompanying Petition  <input type="checkbox"/> To Convert a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Small Entity Statement  <input type="checkbox"/> Request of Refund  <div>Remarks</div>	<input type="checkbox"/> After Allowance Communication to Group  <input type="checkbox"/> Appeal Communications to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communications to Group (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Additional Enclosure(s) (please identify below): <div>1 Return postcard 2 Request for Correction of Filing Receipt 3 Corrected Filing Receipt 4 First Page of Declaration and Power of Attorney 5 First Page of Specification</div>

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT	
Firm or Individual name	Lance K. Ishimoto, Reg. No. 41,866 Lexicon Genetics Incorporated
Signature	
Date	February 28, 2001

CERTIFICATE OF MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on this date: February 28, 2001			
Typed or printed name	Michelle Klein		
Signature		Date	February 28, 2001

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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s):	Turner et al.	
Application No.:	09/658,283	
Filed:	September 8, 2000	Group Art Unit: 1653
Title:	Novel Human 7TM Proteins and Polynucleotides Encoding the Same	Examiner: James Mason
Attorney Docket No.	LEX-0041-USA	

**REQUEST FOR CORRECTION OF FILING RECEIPT****Attn: Office of Initial Patent Examination's Customer Service Center**

Assistant Commissioner for Patents

Washington, D.C. 20231

Sir:

Enclosed is a copy of the Filing Receipt for the above-captioned nonprovisional application, as corrected herein by Applicants. The Filing Receipt does not correctly reflect the priority claims which were listed in the first paragraph of the specification and also on the first page of the Declaration and Power of Attorney. A copy of each is enclosed. The continuing data should read:

**This application claims benefit of 60/153,366 9/10/1999  
and claims benefit of 60/165,510 11/15/1999**

Please make the appropriate corrections and issue a Corrected Filing Receipt.

Applicants believe that no fee is due with this Request for Correction of Filing Receipt because the omission of inventor, omission of priority claim and incorret title reflects a PTO error. However, please charge any required fee to Lexicon Genetics Incorporated Deposit Account No. 50-0892, and please credit any refund to Lexicon Genetics Incorporated Deposit Account No. 50-0892. A copy of this sheet is enclosed.

Respectfully submitted,

By: 

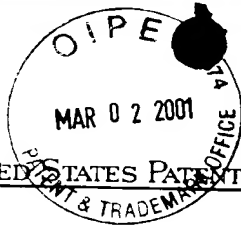
Lance K. Ishimoto

Vice President - Intellectual Property

Reg. No. 41866

Date: 2/20/01

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www.uspto.gov

APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY DOCKET NO	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/658,283	09/08/2000	1653	527	LEX-0041- USA		6	6

24231  
LEXICON GENETICS INCORPORATED  
4000 RESEARCH FOREST DRIVE  
THE WOODLANDS, TX 77381

## FILING RECEIPT



\*OC00000005773051\*

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2/21/01-*dt*

Date Mailed: 02/16/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the PTO processes the reply to the Notice, the PTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).**

## Applicant(s)

C Alexander Turner Jr, The Woodlands, TX ;  
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## Continuing Data as Claimed by Applicant

THIS APPLN CLAIMS BENEFIT OF 60/153,366 09/10/1999  
~~WHICH~~ CLAIMS BENEFIT OF 60/165,510 11/15/1999  
**AND**

## Foreign Applications

If Required, Foreign Filing License Granted 10/24/2000

\*\* SMALL ENTITY \*\*

## Title

Novel human 7tm proteins and receptors and polynucleotides encoding the same

## Preliminary Class

435



NOVEL HUMAN 7TM PROTEINS AND RECEPTORS AND  
POLYNUCLEOTIDES ENCODING THE SAME

The present invention claims priority to U.S. Provisional  
5 Applications Ser. Nos. 60/153,366, filed 9/10/99 and  
60/165,510, filed 11/15/99 which are herein incorporated by  
reference in their entirety.

1. INTRODUCTION

10 The present invention relates to the discovery,  
identification and characterization of novel human  
polynucleotides that encode proteins and membrane associated  
receptors. The invention encompasses the described  
polynucleotides, host cell expression systems, the encoded  
15 proteins, fusion proteins, polypeptides and peptides,  
antibodies to the encoded proteins and peptides, and  
genetically engineered animals that lack the disclosed genes,  
or over express the disclosed sequences, or antagonists and  
agonists of the proteins, and other compounds that modulate  
20 the expression or activity of the proteins encoded by the  
disclosed genes that can be used for diagnosis, drug  
screening, clinical trial monitoring, and/or the treatment of  
physiological or behavioral disorders.

25 2. BACKGROUND OF THE INVENTION

Membrane receptor proteins are integral components of the  
mechanism through which cells sense their surroundings,  
regulate cellular functions, and maintain physiological  
homeostasis. Accordingly, membrane receptor proteins are  
30 often involved in signal transduction pathways that control  
cell physiology, chemical communication, and gene expression.  
A particularly relevant class of membrane receptors are those  
typically characterized by the presence of 7 conserved  
transmembrane domains that are interconnected by nonconserved  
35 hydrophilic loops. Such, "7TM receptors" include a  
superfamily of receptors known as G-protein coupled receptors  
(GPCRs). GPCRs are typically involved in signal transduction  
pathways involving G-proteins. As such, the GPCR family

## PATENT APPLICATION

DECLARATION AND POWER OF ATTORNEY  
FOR PATENT APPLICATIONATTORNEY DOCKET NO. LEX-0041-USA

As a below named inventor, I hereby declare that:

My residence/post office address and citizenship are as stated below next to my name;

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

Novel Human 7TM Proteins and Receptors and Polynucleotides Encoding the Same

the specification of which is attached hereto unless the following box is checked:

( ) was filed on \_\_\_\_\_ as US Application Serial No. or PCT International Application

Number \_\_\_\_\_ and was amended on \_\_\_\_\_ (if applicable).

I hereby state that I have reviewed and understood the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose all information which is material to patentability as defined in 37 CFR 1.56.

**Foreign Application(s) and/or Claim of Foreign Priority**

I hereby claim foreign priority benefits under Title 35, United States Code Section 119 of any foreign application(s) for patent or inventor(s) certificate listed below and have also identified below any foreign application for patent or inventor(s) certificate having a filing date before that of the application on which priority is claimed:

COUNTRY	APPLICATION NUMBER	DATE FILED	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES: _____ NO: _____
			YES: _____ NO: _____

**Provisional Application**

I hereby claim the benefit under Title 35, United States Code Section 119(e) of any United States provisional application(s) listed below:

APPLICATION SERIAL NUMBER	FILING DATE
60/153,366	09/10/1999
60/165,510	11/15/1999

**U.S. Priority Claim**

I hereby claim the benefit under Title 35, United States Code, Section 120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code Section 112, I acknowledge the duty to disclose material information as defined in Title 37, Code of Federal Regulations, Section 1.56(a) which occurred between the filing date of the prior application and the national or PCT international filing date of this application:

APPLICATION SERIAL NUMBER	FILING DATE	STATUS(patented/pending/abandoned)

**POWER OF ATTORNEY:**

As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) listed below to prosecute this application and transact all business in the Patent and Trademark Office connected therewith.

Lance K. Ishimoto, Reg. No. 41866

**Send Correspondence to:**

Lance K. Ishimoto  
Lexicon Genetics Incorporated  
4000 Research Forest Drive  
The Woodlands, TX 77381

**Direct Telephone Calls To:**

Lance K. Ishimoto  
(281) 362-6554

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.